

## **Douglas County**

**Employees' Retirement Plan** 

**Interim Actuarial Review** 

January 1, 2009

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#### Purpose of Interim Actuarial Review

Purpose—The Interim Actuarial Review is prepared for the year between the biannual Actuarial Valuation of the Employee's Retirement Plan to provide:

- An update of the funding status
- An update of plan liabilities
- An update of contribution requirements

#### Review of Plan Experience

- Status of Plan Participants
- Value of Plan Assets

Determine Actuarial Accrued Liability and Annual Costs

**Evaluate Unfunded Accrued Liability** 

#### Actuarial Review Based On:

- Existing Plan Provisions as of January 1, 2009
- Current Active and Non-Active Participant Data
- Actuarial Value of Plan Assets
- Actuarial Methods and Assumptions
- 2009 Experience Analysis

#### **Actuarial Assumption Changes**

The 2009 experience analysis reviewed the following actuarial assumptions. Based on a comparison of actual to expected experience, no changes to the actuarial assumptions as of January 1, 2009 are recommended. See the separate 2009 Experience Analysis for details of this review.

#### Assumptions Reviewed:

- Rates of Termination
- Rates of Retirement
  - Rule of 75
  - Other than Rule of 75
- Rates of Salary Increases
- Rates of Mortality
- · Rate of Investment Return

## Participant Data

|   |                             | January                     |
|---|-----------------------------|-----------------------------|
|   | <u>2008</u>                 | <u>2009</u>                 |
| Active Participants: Under Age 65 Age 65 & Over   | 2,046<br>11                 | 2,045<br>11                 |
| Total   | 2,057                       | 2,056                       |
| Non-Active Participants: Retired Vested Terminated Terminated Non-Vested Social Services Disabled | 957<br>75<br>165<br>2<br>28 | 982<br>92<br>139<br>2<br>32 |
| Total Participants  | 3,284                       | 3,303                       |
| Annual Compensation:<br>Total, Under Age 65<br>Average Per Participant                            | \$97,011,758<br>47,415      | \$100,185,211<br>48,990     |
| Annual Pension Benefit: Current Retired Immediate Disability Payments                             | \$12,672,657<br>487,539     | \$ 13,688,149<br>470,516    |
| Deferred to Age 65<br>Vested Terminated<br>Disabled   | 591,457<br>717,430          | 733,756<br>860,291          |

### Market Value of Assets

## Decrease Since January 1, 2007

|  | 2007          | <u>2008</u>   |
|--|---------------|---------------|
| Assets at Beginning of Year            | \$175,115,759 | \$184,386,700 |
| Receipts:                              |               |               |
| County Contributions                   | 7,610,133     | 8,732,900     |
| Employee Contributions                 | 7,615,358     | 8,762,361     |
| Interest and Dividends                 | 5,317,735     | 5,306,654     |
| Realized and Unrealized Gain (or Loss) | 3,298,822     | (39,989,020)  |
| Total Receipts                         | 23,842,048    | (17,187,105)  |
| Disbursements:                         |               |               |
| Pensions Paid to Retirees              | 12,162,311    | 13,241,552    |
| Refunds to Terminated EEs              | 1,665,627     | 1,920,700     |
| Disability Premium/Admin.              | 191,743       | 195,886       |
| Administrative Charge                  | 551,426       | 565,864       |
| Total Disbursements                    | 14,571,107    | 15,924,002    |
| Assets at End of Year                  | 184,386,700   | 151,275,593   |
| Approximate Rate of Return             | 4.9%          | -18.7%        |

#### Plan Assets

#### **Actuarial Value Description**

#### Objective

Since January 1, 1986, an actuarial value of plan assets has been used to determine annual contribution requirements and to evaluate the funding status of the Retirement Plan. An actuarial value of plan assets is used to smooth fluctuations in market value from one valuation date to the next.

#### Description

Actuarial value is equal to:

- Adjusted plan assets
- Plus, one-half of the excess of market value over the adjusted plan assets

Where adjusted plan assets equal:

- Actuarial value of plan assets on the prior valuation
- · Plus, contributions, interest and dividends
- Less, pensions paid, refunds and other disbursements.

### Plan Assets

## Actuarial Value January 1, 2009

| Actuarial Value, January 1, 2008   | \$177,833,982                                 |
|--|---|
| Plus, County Contributions Employee Contributions Interest and Dividends       | 8,732,900<br>8,762,361<br>5,306,654           |
| Less, Pensions Paid Refunds Disability Premiums/Benefits Administrative Charge | 13,241,552<br>1,920,700<br>195,886<br>565,864 |
| Adjusted Value, January 1, 2009  | 184,711,895                                   |
| Market Value, January 1, 2009  | 151,275,593                                   |
| One-Half Excess,<br>Market Value Less Adjusted Value                           | (16,718,151)                                  |
| Actuarial Value, January 1, 2009   | 167,993,744                                   |
| Less, Prepaid County Contributions   | 0   |
| Adjusted Actuarial Value, January 1, 2009                                      | 167,993,744                                   |
| Approximate Rate of Return   | -6.4%   |
| Actuarial Value as a % of Market Value   | 111.1%  |

## Plan Funding

## **Unfunded Accrued Liability**

|    |  | Janua       | ary 1,      |
|----|--|-------------|-------------|
|    |  | 2008        | 2009        |
|    |  | (\$1,000's) | (\$1,000's) |
| 1. | Actuarial Accrued Liability            |             |             |
|    | Active Employees                       | \$141,015   | \$149,397   |
|    | Non-Active Employees                   |             |             |
|    | Retirees                               | 122,395     | 132,143     |
|    | <ul> <li>Deferred Vested</li> </ul>    | 3,946       | 4,727       |
|    | <ul> <li>Disabled</li> </ul>           | 2,995       | 3,860       |
|    | Total                                  | \$270,351   | \$290,127   |
| 2. | Assets (Actuarial Value)               | 177,834     | 167,994     |
| 3. | Unfunded Accrued Liability = (1 - 2)   | \$ 92,517   | \$122,133   |
| 4. | Ratio of Assets to Liability = (2 ÷ 1) | 65.8%       | 57.9%       |

## Plan Funding

## **Annual Normal Cost**

|   | January 1,          |                            |
|---|---------------------|----------------------------|
|   | 2008<br>(\$1,000's) | <u>2009</u><br>(\$1,000's) |
| Annual Normal Cost                            |                     |                            |
| Retirement, Death, Disability and Termination | \$10,481            | \$10,958                   |
| Immediate Disability                          | 268                 | 273                        |
| Administrative Expenses                       | 553                 | 454                        |
| Total   | \$11,302            | \$11,685                   |
| Expected Plan Receipts                        |                     |                            |
| From Employees                                | \$ 8,246            | \$ 8,516                   |
| From County                                   | 8,246               | 8,516                      |
| Total   | \$16,492            | \$17,032                   |

# Plan Funding Amortization of Unfunded Accrued Liability

|   | January 1,                 |                            |  |
|---|----------------------------|----------------------------|--|
|   | <u>2008</u><br>(\$1,000's) | <u>2009</u><br>(\$1,000's) |  |
| Unfunded Accrued Liability                                    | \$92,517                   | \$122,133                  |  |
| Annual Normal Cost  | 11,302                     | 11,685                     |  |
| Expected Plan Receipts  |                            |                            |  |
| From Employees<br>From County                                 | \$ 8,246<br>8,246          | \$ 8,516<br>8,516          |  |
| Total   | \$16,492                   | \$ 17,032                  |  |
| Amount Available to Reduce<br>Unfunded Accrued Liability      | 5,190                      | 5,347                      |  |
| Amortization Period for Balance of Unfunded Accrued Liability | Unable to<br>Amortize      | Unable to<br>Amortize      |  |

## History of Plan Changes

| 2008 | Member and County contribution rate increased from 7.5% to 8.5%   |
|------|---|
| 2007 | Member and County contribution rate increased from 6.5% to 7.5%   |
| 2006 | Member and County contribution rate increased from 5.5% to 6.5%   |
| 2002 | Increase retiree pension by 3%, but not less than \$5 a month   |
| 2000 | Increase retiree pension by 4%, but not less than \$5 a month   |
| 1998 | Increase retiree pension by 3%, but not less than \$5 a month   |
| 1997 | <ol> <li>Rule of 75 for other than law enforcement         Unreduced benefit upon Rule of 75         2.0% benefit formula after January 1, 1962         5.5% member contributions     </li> </ol>   |
| 1996 | <ol> <li>Rule of 75 for law enforcement         Unreduced benefit upon Rule of 75         2.0% benefit formula after January 1, 1962         5.5% member contributions</li> <li>Participation begins on first day of employment</li> <li>Increase retiree pension by 4% but not less than \$10 a month</li> </ol>             |
| 1994 | <ol> <li>Benefit formula change to the following:         <ul> <li>1% of pay for service before January 1, 1962</li> <li>5% of pay for service after January 1, 1962</li> </ul> </li> <li>Decrease in interest rate on employee contributions to 5% effective July 1, 1994</li> <li>Increase retiree pension by 3%</li> </ol> |
| 1992 | <ol> <li>Early Retirement Incentive Program (112 members elected benefit)</li> <li>Early Termination of Employment Incentive Program (188 members elected benefit)</li> <li>Increase retiree pension by 3%</li> </ol>   |

## History of Plan Changes (continued)

| 1990 | 2.<br>3.                           | Benefit formula change to the following:  1% of pay for service before January 1, 1962  1.4625% of pay for service after January 1, 1962 Increase retiree pension by 4%  Vesting changed from 25% after 5 graded to 100% after 15 to 25% after 5 increased 15% a year up to 10  Maximum Disability Benefit increased from \$36,000 to \$57,600 |
|------|------------------------------------|--|
| 1988 | 2.                                 | Benefit formula change to the following: 1% of pay for service before January 1, 1962 1.425% of pay for service after January 1, 1962 Increase retiree pension by 4%, but no less than \$5 a month Changed eligibility requirements to include participants hired after age 60   |
| 1986 |                                    | Benefit formula change to the following:  1% of pay for service before January 1, 1962  1.2% of pay for service from January 1, 1962 to January 1, 1972  1.4% of pay for service after January 1, 1972  Increase retiree pension by 6% but not less than \$5 a month   |
| 1984 |                                    | Increased benefit formula from 1.1% of pay to 1.2% for service after January 1, 1974 Increase retiree pension by 6%, but not less than \$5 a month   |
| 1982 | <ol> <li>3.</li> <li>4.</li> </ol> | Added Special Early Retirement Benefit formula change from 1% of pay to 1.1% of pay for service after January 1, 1972 Increase retiree pension by 6%, but not less than \$10 a month Changes in disability retirement provisions Changes in actuarial assumptions Special provisions for county employees change to state employees            |
| 1980 | 3.                                 | Special Early Retirement Change in service definition – unlimited sick leave \$10/month increase in pension to retirees Added Late Retirement Benefit  |

## History of Plan Funding

|             | Act. Value  | Actuarial Accrued Liability |               | Funded Ratio   |                |  |
|-------------|-------------|-----------------------------|---------------|----------------|----------------|--|
|             | of Assets   | Before                      | After Changes | Before         | After          |  |
| <u>Year</u> | (\$1,000's) | (\$1,000's)                 | (\$1,000's)   | <u>Changes</u> | <u>Changes</u> |  |
| 2009        | 167,994     | 290,127                     | 290,127       | 57.9%          | 57.9%          |  |
| 2008        | 177,834     | 269,970                     | 270,351       | 65.9%          | 65.8%          |  |
| 2007        | 165,309     | \$253,386                   | \$248,986     | 65.2%          | 66.4%          |  |
| 2006        | 151,686     | 239,229                     | 239,602       | 63.4           | 63.3           |  |
| 2005        | 142,403     | 221,642                     | _             | 64.2           | _              |  |
| 2004        | 132,769     | 204,952                     | _             | 64.8           | _              |  |
| 2003        | 125,238     | 188,697                     | _             | 66.4           | _              |  |
| 2002        | 126,336     | 167,690                     | 172,615       | 75.3           | 73.2           |  |
| 2000        | 117,626     | 124,906                     | 127,011       | 94.2           | 92.6           |  |
| 1998        | 97,626      | 107,071                     | 108,391       | 91.2           | 90.1           |  |
| 1996        | 81,626      | 78,202                      | 83,472        | 104.4          | 97.8           |  |
| 1994        | 69,860      | 71,242                      | 72,869        | 98.1           | 95.9           |  |
| 1992        | 60,912      | 59,747                      | 66,161        | 101.9          | 92.1           |  |
| 1990        | 48,387      | 47,474                      | 48,717        | 101.9          | 99.3           |  |
| 1988        | 37,662      | 36,212                      | 37,390        | 104.0          | 100.7          |  |
| 1986        | 30,161      | 27,830                      | 30,455        | 108.4          | 99.0           |  |
| 1984        | 21,752      | 20,912                      | 22,203        | 104.0          | 98.0           |  |
| 1982        | 16,115      | 16,687                      | 17,828        | 96.6           | 90.4           |  |
| 1980        | 11,468      | 15,229                      | 15,597        | 75.3           | 73.5           |  |

#### Summary of Plan Provisions

Eligibility First day of continuous employment

Benefit Service Years of employment following July 1, 1952

Service following January 1, 1955 for former participants of

Board of Health Plan

Retirement Age

Normal Age 65

Early Age 55 and 20 years of service, or

Age 60 and 5 years of service

Rule of 75 Age 50, age plus service total 75 or more.

Final Average Pay Highest average during the 60 consecutive months of the

last 120 months of service

Average for former participants of Board of Health Plan is

limited for years of service prior to 1975

Retirement Annuity Joint life annuity, 60% continuing to eligible spouse or

dependent children

Five year certain and life, if no eligible dependents

Contributions

Employee Members contributed 5.5% of total earnings prior to

January 1, 2006. The annual contribution rate increased to 6.5% as of January 1, 2006, 7.5% as of January 1, 2007

and 8.5% as of January 1, 2008 and thereafter.

Following July 1, 1985 employee contributions are made on a "before tax" basis utilizing the "employer picked up"

provisions of IRC 414(h)(2)

County Based on actuarial recommendation; not in excess of

employee contributions

## Summary of Plan Provisions (continued)

#### Retirement Benefit

Normal 1% of Final Average Pay for years of Benefit Service prior

to 1962, plus 2% of Final Average Pay for years of Benefit Service after 1961. Maximum 60% of Final Average Pay.

Early Earned benefit reduced by 3% per year

Rule of 75 Unreduced earned benefit.

Late Larger of:

• Benefit earned to Age 65, increased 3/4 of 1% for

each month retirement is deferred

Benefit earned to date of retirement no change in pay

**Disability Benefit** 

Eligibility 5 Years of Service, 6 months of total and

permanent disability

Immediate Benefit 70% of compensation, offset by Social Security and

Workers' Compensation to a maximum monthly

benefit of \$4,800

Deferred Benefit Projected retirement benefit determined assuming

no change in pay

Preretirement Death Benefit

Married, With 8 Years 60% of earned pension payable to

Service surviving spouse or dependents

Unmarried or Ineligible Return of employee contributions, plus 5% interest

Termination Benefit Return of employee contributions, plus 5% interest

or a deferred vested benefit

Vesting graded from 25% at 5 years increasing 15% per year until reaching 100% after 10 years

## Actuarial Methods and Assumptions

#### **Projected Unit Credit Cost Method**

**Annual Benefit** 

Portion of projected retirement benefit allocated to

each year of plan participation

**Actuarial Present Value** 

The amount needed today to satisfy a future

obligation

**Annual Normal Cost** 

Actuarial present value of Annual Benefit allocated

to 2009

**Actuarial Accrued Liability** 

Actuarial present value of Annual Benefits allocated

to years prior to 2009

## Actuarial Methods and Assumptions

### **Actuarial Assumptions**

| Annual Rate of Investment Return    | 7.5%  |
|-------------------------------------|-------|
| Annual Rate of Increases in Salary  | 5.5%  |
| Annual Rate of Voluntary Withdrawal |       |
| <u>Age</u>                          |       |
| 25                                  | 16.2% |
| 35                                  | 11.6  |
| 45                                  | 7.4   |
| 55                                  | 1.7   |

Rate of Mortality

RP 2000 Projected to 2007

| Rate   | Ωf   | Re  | tire | m | Δn   | t |
|--------|------|-----|------|---|------|---|
| 137112 | 1 11 | 110 |      |   | C 11 |   |

|        | Rule of 75 | <u>Other</u> |
|--------|------------|--------------|
| Age 50 | 30%        | 5%           |
| 51-54  | 15         | 2            |
| 55-61  | 15         | 5            |
| 62     | 40         | 20           |
| 63-69  | 30         | 10           |
| 70     | 100        | 100          |
|        |            |              |

Retirement rate is 30% the first year a Member is eligible for the Rule of 75.

**Administrative Expense** 

3/10 of 1% of plan assets